

California High-Speed Rail Authority



RFP No.: HSR 14-32

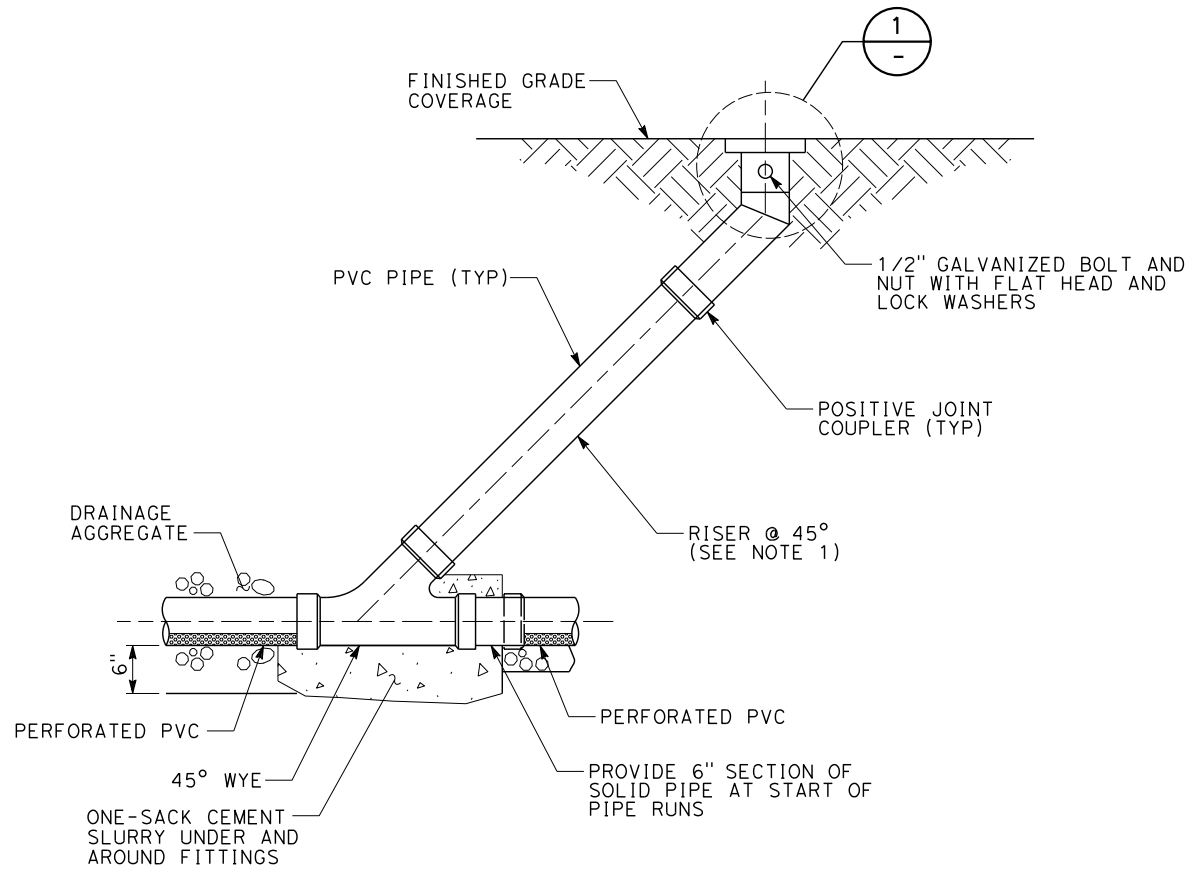
**Request for Proposals for Design-Build
Services for Construction Package 4**

**Reference Material, Part A.2
Standard Drawings**

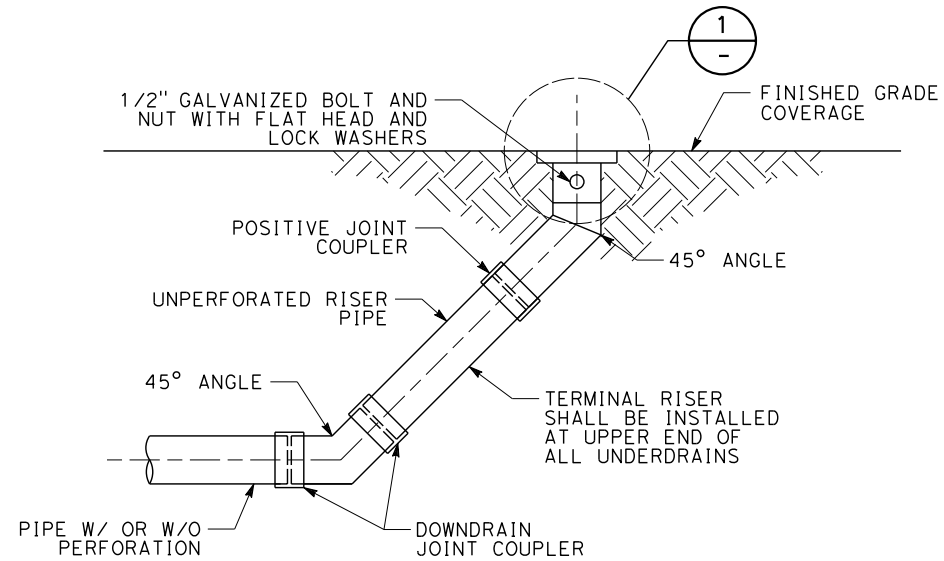
DRAINAGE		
DRAWING TYPE	DRAWING NO.	DRAWING TITLE
SD	SD-CD-900	TRACK DRAIN/UNDERDRAIN, CLEANOUT AND RISER DETAILS
SD	SD-CD-901	DITCH DETAILS
SD	SD-CD-902	STORM DRAIN HOLES
SD	SD-CD-903	RETAINING WALL DRAINAGE DETAILS

[illegible]

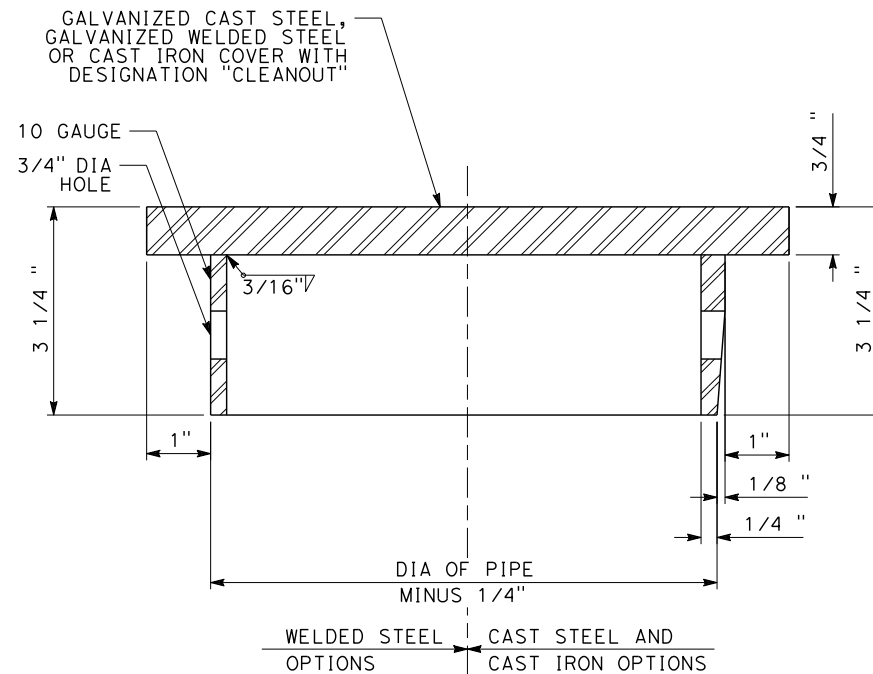
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INTERMEDIATE RISER/CLEANOUT
SCALE: 1"=1'-0"



TERMINAL RISER DETAIL
SCALE: 1"=1'-0"



DETAIL
SCALE: 8"=1'-0"

NOTES:

1. RISER MAY BE ANGLED AT 90 DEGREES DUE TO SPACE CONSIDERATIONS.

REV	DATE	BY	CHK	APP	DESCRIPTION

DESIGNED BY K. SISTLA
DRAWN BY V. HUANTE
CHECKED BY A. ABTAHI
IN CHARGE J. CHIRCO
DATE 01/24/2014

**PARSONS
BRINCKERHOFF**



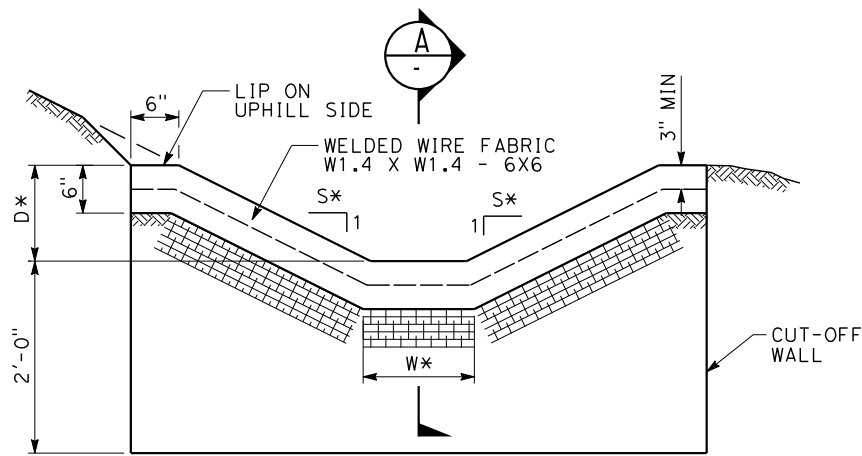
CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT
DRAINAGE STANDARD**

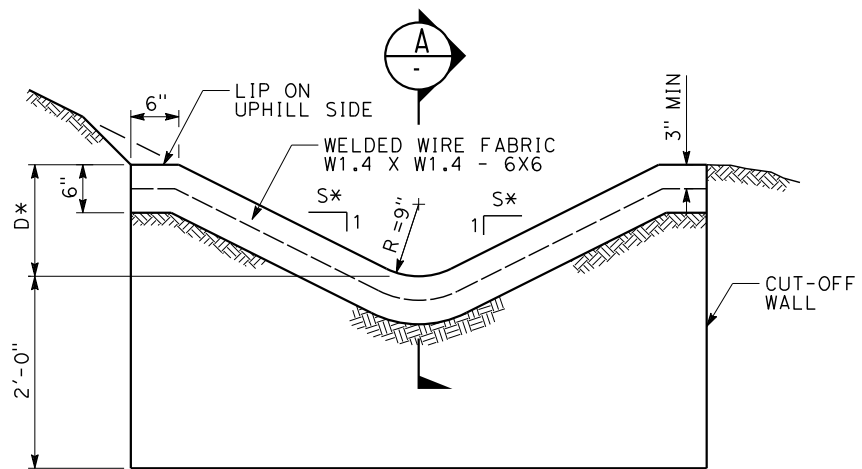
TRACK DRAIN/UNDERDRAIN
CLEANOUT AND RISER DETAILS

CONTRACT NO.
DRAWING NO. SD-CD-900
SCALE AS SHOWN
SHEET NO.

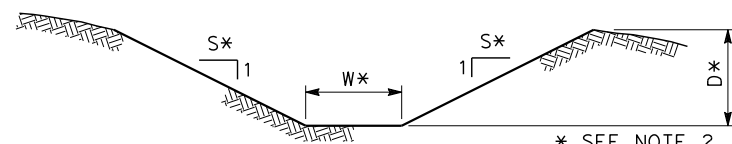
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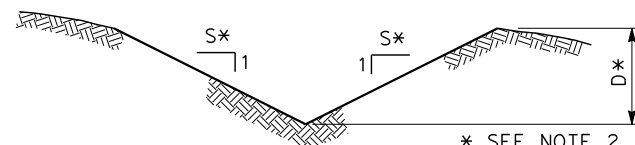
TYPE A (TRAPEZOID) DITCH



TYPE B ("V") DITCH

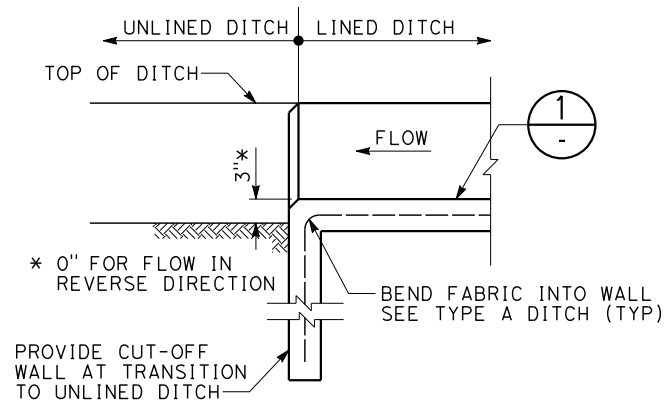


TYPE C (TRAPEZOID) DITCH

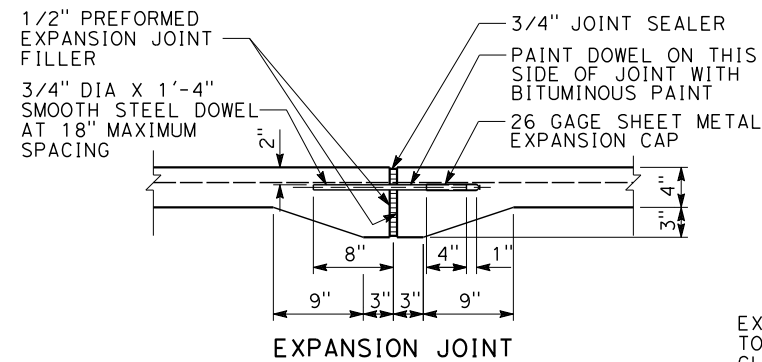


TYPE D ("V") DITCH

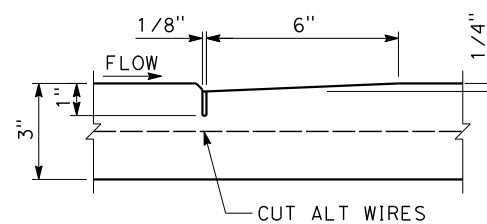
DITCH DETAILS
NO SCALE



SECTION



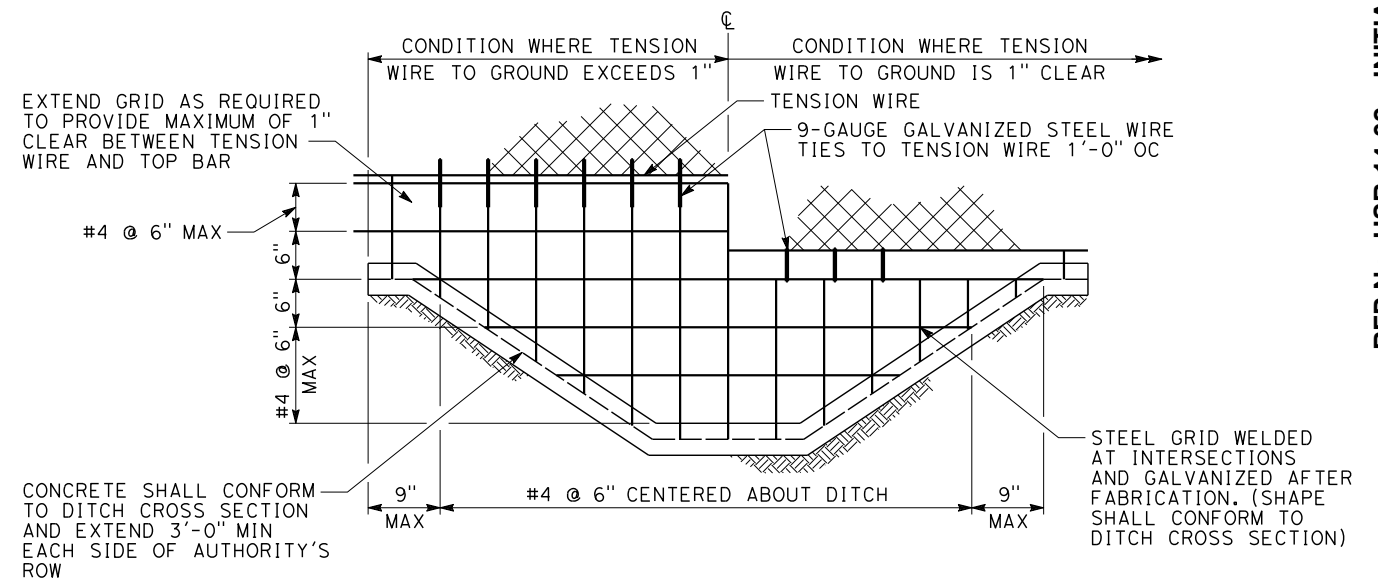
EXPANSION JOINT



CONTRACTION JOINT

JOINT DETAILS

NO SCALE
(SEE NOTE 3)



OPEN CHANNEL CLOSURE DETAIL

NO SCALE
(SEE NOTE 4)

NOTES:

1. DITCH LINING SHALL BE CONCRETE OR SHOTCRETE.
2. DITCH SHALL CONFORM TO THE FOLLOWING MINIMUM DIMENSIONS:

D = DEPTH OF DITCH, 1 FOOT MINIMUM
S = SLOPE OF DITCH, SIDES, 2:1 MAX FOR CONCRETE LINED CHANNEL, 3:1 MAX FOR GRASS LINED CHANNEL
W = WIDTH OF BOTTOM OF DITCH, 4 FEET MINIMUM
3. TYPE A AND B DITCHES SHALL HAVE A CONTRACTION JOINT EVERY 10 FEET, AND AN EXPANSION JOINT EVERY 100 FEET.
4. OPEN CHANNEL CLOSURE SHALL BE REQUIRED AT EACH LOCATION WHERE AN OPEN CHANNEL PASSES UNDER AUTHORITY'S RIGHT-OF-WAY.

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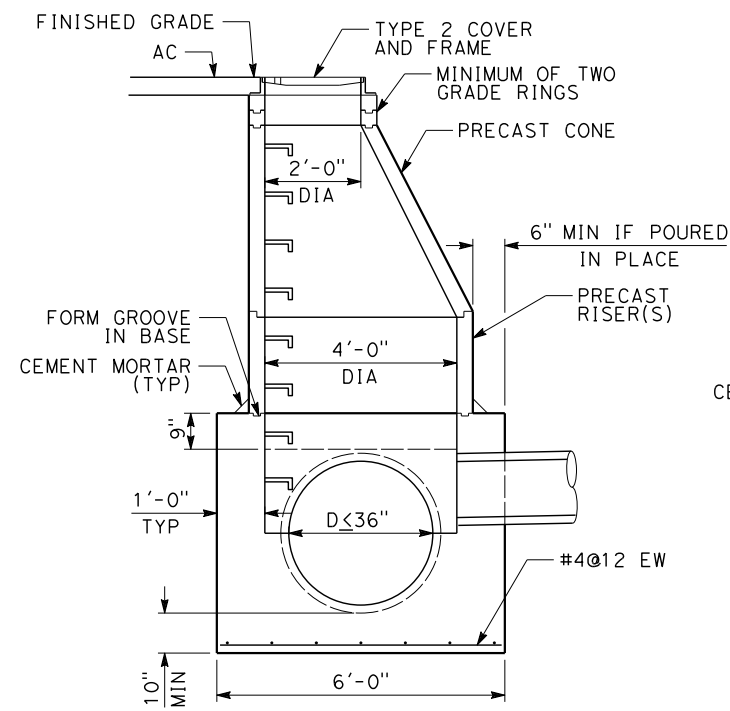


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DITCH DETAILS

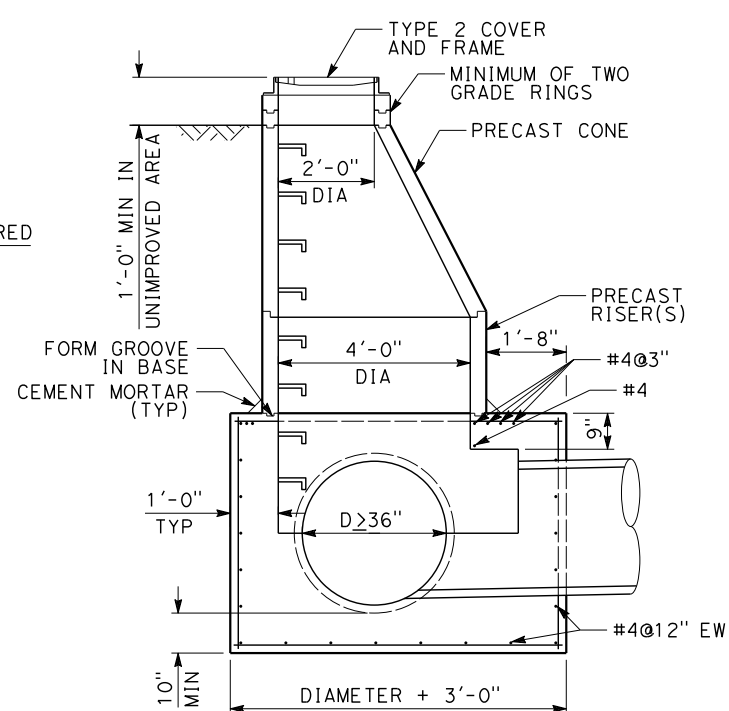
CONTRACT NO.
DRAWING NO. SD-CD-901
SCALE NO SCALE
SHEET NO.



SECTION A
NO SCALE -

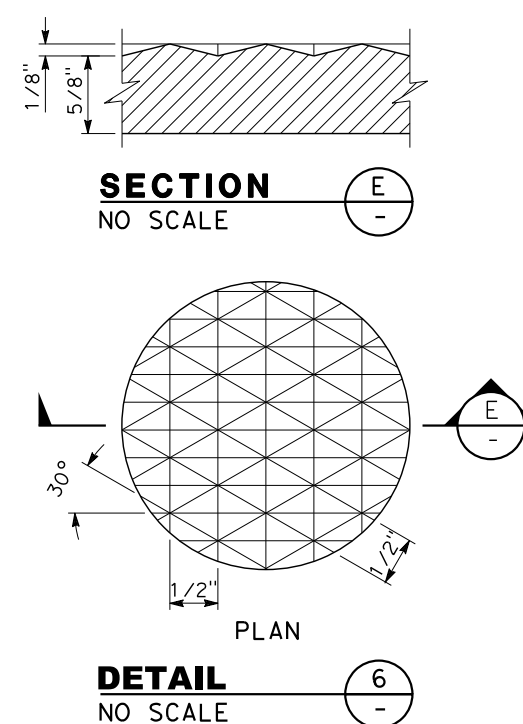
NOTE:
FOR STEP DETAILS, SEE NOTES

MANHOLE FOR
PIPE DIAMETER 36" OR LESS



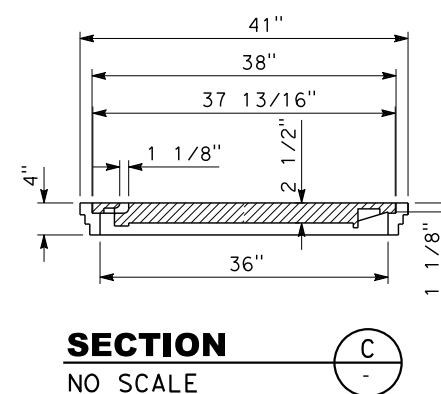
SECTION B
NO SCALE -

MANHOLE FOR
PIPE DIAMETER MORE THAN 36"

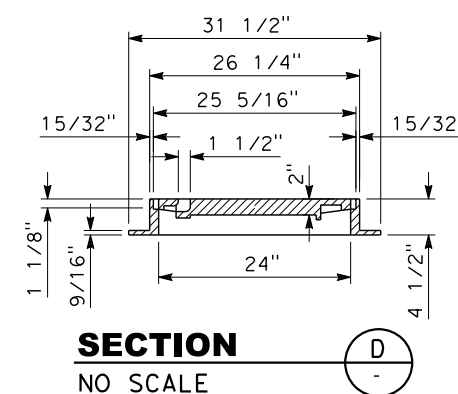


SECTION E
NO SCALE -

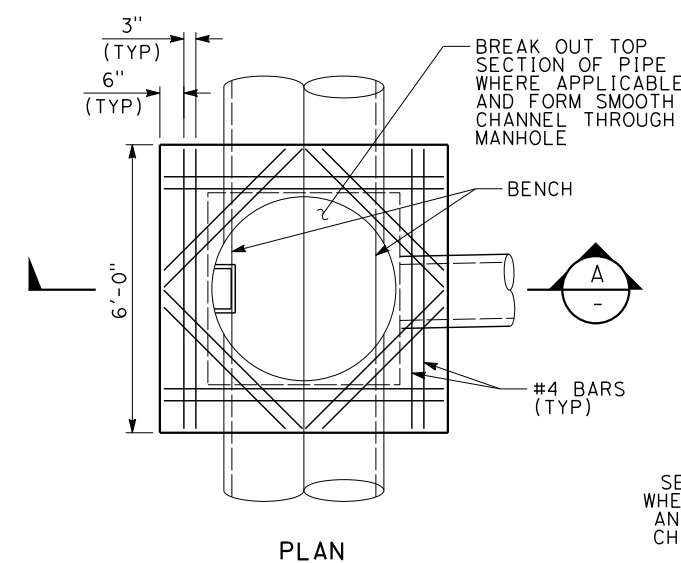
DETAIL 6
NO SCALE -




SECTION C
-

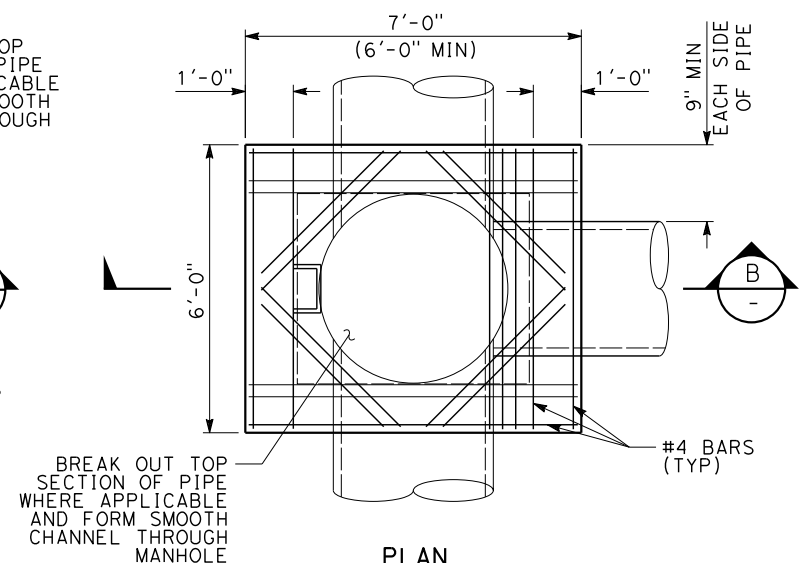


SECTION D
NO SCALE -

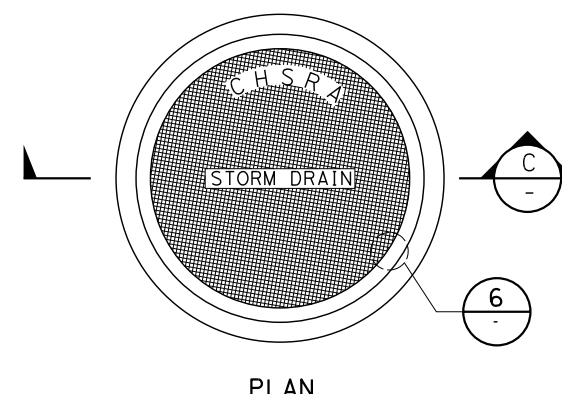


DETAIL 

NO SCALE

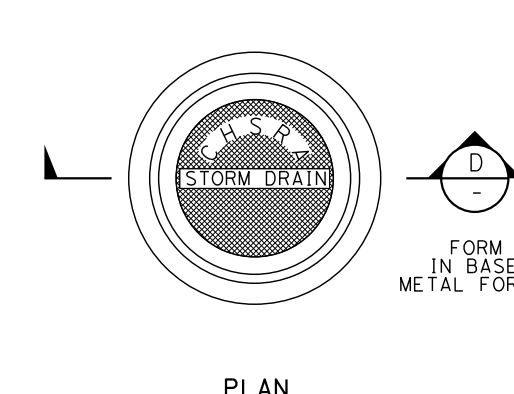


DETAIL 2
NO SCALE



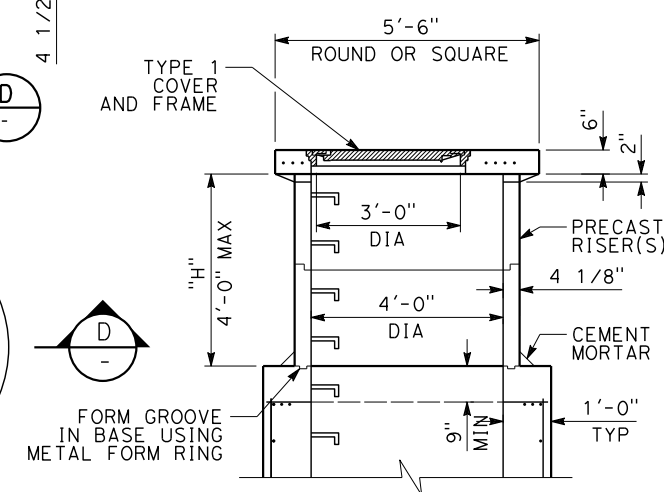
TYPE 1 COVER AND FRAME
(WEIGHT=700#)

DETAIL 3
NO SCALE -



TYPE 2 COVER AND FRAME
(WEIGHT=320#)

DETAIL 4
NO SCALE



ALTERNATE CHIMNEY
AND GRADE SLAB
(REQUIRED WHERE "H" IS LESS THAN 4'-0")

DETAIL 5
NO. SCALE -

- NOTES:**
1. GROUT ALL JOINTS.
 2. ALL PORTLAND CEMENT CONCRETE SHALL BE CLASS 4000.
 3. PLACE STEPS ON DOWNSTREAM SIDE OF MANHOLE IF POSSIBLE.
 4. REFER TO CALTRANS STANDARD PLAN FOR STEP DETAILS (D74C).

[illegible]

DESIGNED BY	K. SISTLA
DRAWN BY	T. DOUNG
CHECKED BY	A. ABTAHI
IN CHARGE	J. CHIRCO
DATE	01/24/2014

**PARSONS
BRINCKERHOFF**

CALIFORNIA
HIGH-SPEED RAIL AUTHORITY

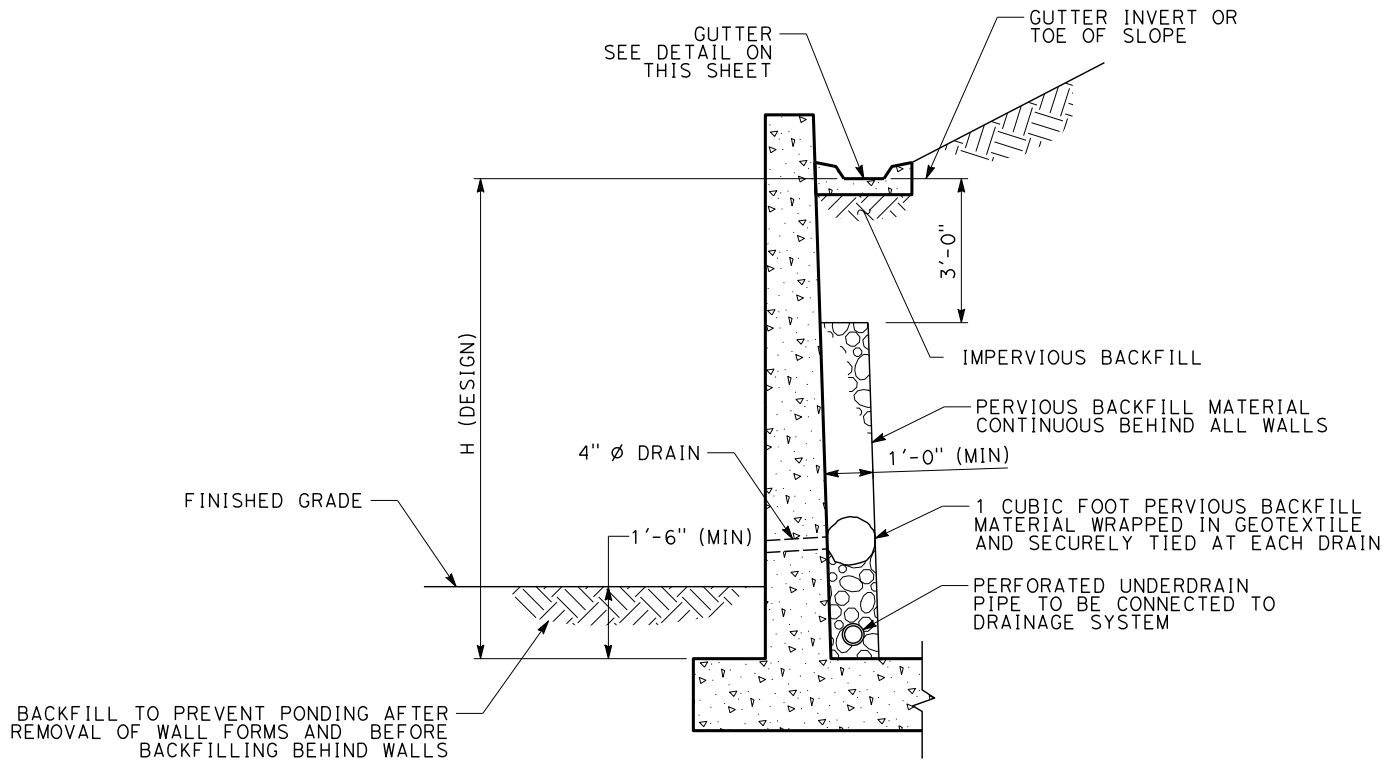
CALIFORNIA HIGH-SPEED TRAIN PROJECT DRAINAGE STANDARD

STORM DRAIN MANHOLES

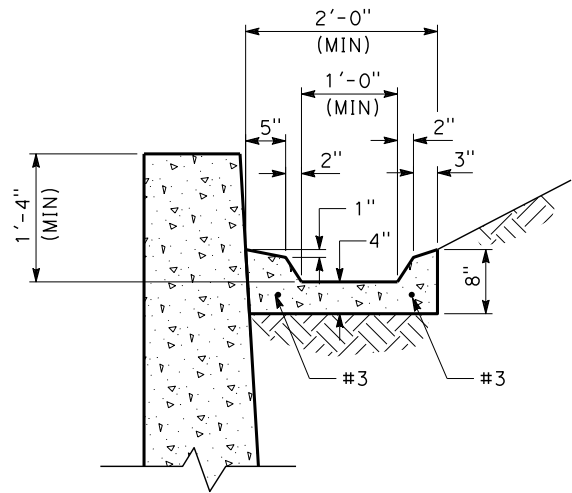
CONTRACT NO.
DRAWING NO. SD-CD-902
SCALE NO SCALE
SHEET NO.

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NOTES:
1. RETAINING WALL STRUCTURE IS SCHEMATIC AND DOES NOT REPRESENT DESIGN.



RETAINING WALL DRAINAGE



TYPICAL GUTTER DETAIL

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DRAINAGE STANDARD**

RETAINING WALL DRAINAGE DETAILS

CONTRACT NO.
DRAWING NO. SD-CD-903
SCALE NO SCALE
SHEET NO.